

## CLAIMS

### WHAT IS CLAIMED IS:

- 1        1. An article having a decorative coating provided thereon, the  
2 article comprising:
  - 3                a substrate having a surface; and
  - 4                a material comprising scandium provided over at least a  
5 portion of the surface to thereby form a decorative coating which exhibits  
6 a desired color.
- 1        2. The article of claim 1, wherein the material comprising  
2 scandium further comprises nitrogen.
- 1        3. The article of claim 1, wherein the material comprising  
2 scandium further comprises at least one of carbon and oxygen.
- 1        4. The article of claim 1, wherein the material comprising  
2 scandium comprises at least 10 atomic percent scandium.
- 1        5. The article of claim 1, wherein the material comprising  
2 scandium further includes at least one metal selected from the group  
3 consisting of zirconium, titanium, yttrium, niobium, hafnium,  
4 molybdenum, chromium, and aluminum.
- 1        6. The article of claim 5, wherein the material comprising  
2 scandium includes nitrogen.
- 1        7. The article of claim 5, wherein the material comprising  
2 scandium includes at least one of carbon and oxygen.

1       8.     The article of claim 1, wherein the material comprising  
2     scandium includes at least one metal selected from the group consisting  
3     of lanthanum, neodymium, praseodymium, samarium, dysprosium,  
4     erbium, ytterbium, and cerium.

1       9.     The article of claim 8, wherein the material comprising  
2     scandium includes nitrogen.

1       10.    The article of claim 8, wherein the material comprising  
2     scandium includes at least one of carbon and oxygen.

1       11.    The article of claim 1, wherein the material comprising  
2     scandium is configured to provide at least one of abrasion resistance,  
3     scratch resistance, tarnish resistance, and corrosion resistance for the  
4     substrate.

1       12.    The article of claim 1, wherein the material comprising  
2     scandium has a thickness effective to provide the desired color.

1       13.    The article of claim 12, wherein the thickness is greater than  
2     approximately 50 nm.

1       14.    The article of claim 13, wherein the thickness is greater than  
2     approximately 100 nm.

1       15.    The article of claim 1, further comprising a strike layer  
2     provided intermediate the substrate and the material comprising  
3     scandium.

1       16.    The article of claim 1, wherein the strike layer comprises  
2     scandium.

1       17.    An article having a decorative coating comprising:

2                   a substrate having a surface; and  
3                   a compound provided over at least a portion of the surface,  
4   the compound comprising scandium.

1               18. The article of claim 17, wherein the compound comprises  
2   scandium nitride.

1               19. The article of claim 17, wherein the compound further  
2   comprises at least one of carbon and oxygen.

1               20. The article of claim 17, wherein the compound includes at  
2   least one metal selected from the group consisting of zirconium, titanium,  
3   yttrium, niobium, hafnium, molybdenum, chromium, aluminum,  
4   lanthanum, neodymium, praseodymium, samarium, dysprosium, erbium,  
5   ytterbium, and cerium.

1               21. The article of claim 20, wherein the compound includes  
2   nitrogen.

1               22. The article of claim 17, wherein the compound includes at  
2   least one of carbon and oxygen.

1               23. The article of claim 17, wherein the compound is configured  
2   to provide at least one of abrasion resistance, scratch resistance, tarnish  
3   resistance, and corrosion resistance for the substrate.

1               24. The article of claim 17, wherein the compound has a  
2   thickness greater than approximately 50 nm.

1               25. The article of claim 24, wherein the compound has a  
2   thickness greater than approximately 100 nm.

1               26. An article of manufacture comprising:

2                   a substrate having a surface; and  
3                   a compound comprising scandium and at least one additional  
4                   element deposited on the surface, the compound configured to provide a  
5                   decorative color coating for the article;  
6                   wherein the at least one additional element is selected from  
7                   the group consisting of nitrogen, oxygen, carbon, and a metal;  
8                   wherein the color provided by the compound may be  
9                   adjusted by changing the amount of the at least one additional element in  
10                  the compound.

1           27. The article of claim 26, wherein compound includes at least  
2           two additional elements selected from the group consisting of nitrogen,  
3           oxygen, carbon, and a metal.

1           28. The article of claim 27, wherein the color provided by the  
2           compound may be adjusted by changing the relative amounts of the at  
3           least two additional elements.

1           29. The article of claim 26, wherein the compound comprises  
2           scandium and nitrogen.

1           30. The article of claim 29, wherein the compound further  
2           comprises at least one of oxygen, carbon, and a metal.

1           31. The article of claim 26, wherein the compound comprises a  
2           metal selected from the group consisting of zirconium, titanium, yttrium,  
3           niobium, hafnium, molybdenum, chromium, and aluminum.

1           32. The article of claim 31, wherein the compound further  
2           comprises nitrogen.

1           33. The article of claim 26, wherein the compound comprises a  
2 metal selected from the group consisting of lanthanum, neodymium,  
3 praseodymium, samarium, dysprosium, erbium, ytterbium, and cerium.

1           34. The article of claim 33, wherein the compound further  
2 comprises nitrogen.

1           35. The article of claim 26, further comprising a strike layer  
2 provided intermediate the compound and the substrate, the strike layer  
3 comprising scandium.

1           36. The article of claim 26, wherein the compound is deposited  
2 at a thickness greater than 50 nm.